Exploratory analyses of emotion recognition difficulties in children with acquired brain injury

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Abstract

Socio-emotional behaviour problems are common in children following acquired brain injury (ABI), and have been linked to an underlying impairment in the ability to recognise emotional expression from other peoples’ faces and eyes. This study aimed to extend previous research by exploring the relationships between emotion recognition, cognitive functioning, and nature of neurological injury. As previous research has typically focussed on children with traumatic brain injury, this study included a more representative sample of the types of focal and diffuse/multi-focal ABI seen in routine clinical practice. Exploratory analyses were conducted on the performance of 14 children with ABI compared with 67 non-ABI controls on measures of emotion recognition from faces and eyes. Children with ABI performed significantly worse than children without ABI on both measures. This deficit remained when controlling for cognitive functioning on the faces task, but not on the eyes task. There was no predictive relationship between emotion recognition performance and scores on a measure of socio-emotional behaviour in the ABI group, although relationships between performance on some cognitive measures and socio-emotional outcomes were found. No significant relationships were found between timing or type (focal or diffuse/multi-focal) of ABI, and emotion recognition performance. The findings highlight the presence of emotion recognition difficulties in a group of children not pre-selected for emotion recognition or socio-emotional difficulties, suggesting that emotion recognition difficulties may be more prevalent than previously anticipated. Further research with a larger ABI sample and longitudinal design would be beneficial in clarifying the potential developmental emergence of predictive relationships between emotion recognition and socio-emotional outcomes.

Keywords: Emotion recognition; child; brain injury; social cognition; theory of mind